said to be a twenty-four-hour day, and he is always working when there is anything to do. Weeks and months and sometimes years of tedious experimenting, dauntless patience and unflagging industry, have marked his onward march to victory from the beginning until now. His is a splendid example of scientific pertinacity rarely if ever surpassed in the history of human achievement. He has won and held the admiration of the world; and his influence must remain as a permanent source of inspiration both within the schools and without.

RICHARD C. MACLAURIN
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

THE PROCEEDINGS OF THE NATIONAL ACADEMY AS A MEDIUM OF PUBLICATION

THE establishment of monthly *Proceedings* by the National Academy of Sciences, in which the first announcements of new advances are made, has met with instant recognition by a wide circle of investigators. Eighty-three original papers have appeared in the first five numbers, and the inflow of manuscripts is continually increasing. Many university departments and several research laboratories, namely, the Rockefeller Medical Institute, the Lick and Yerkes Observatories, the Nutrition, Experimental Evolution, and Marine Biological Laboratories and the Mount Wilson Observatory of the Carnegie Institution, and the Research Laboratories of Harvard University and the Massachusetts Institute of Technology have already indicated their intention of adopting the *Proceedings* as their regular medium for announcing new and important results. The success of the *Proceedings* is therefore amply assured.

The need of a national journal representing the joint interests of science as a whole and providing for the prompt publication and wide distribution of the chief results of American research has been felt in every department of science. The vigorous developments of science in recent years have carried us past the time when all of the special journals could assure early publication; and their very multiplicity has stood in the way of wide foreign circulation. Four leading American journals of biology have an average paid foreign circulation of 93 copies (maximum 109, minimum 77). This is not due to any inferiority in quality, as all of these journals are of the first rank. Nor does it indicate that they are undesirable places to publish. On the contrary, they have come into existence to meet a natural demand, and they certainly afford the most satisfactory means of publishing extended technical papers, intended for investigators in the fields which they represent. The *Proceedings* are expected to supplement them and should aid materially in increasing their circulation; for authors are requested to adopt the uniform practise of referring in each article to the journal in which the details of their investigations will subsequently appear. Such frequent references, seen by a wide circle of readers, will soon have their effect.

It is in the character and scope of their circulation that the *Proceedings* will perform their best service. Truly national in character, with a membership elected on equal terms from all sections of the country, and serving as the representative of the United States in the International Association of Academies, the National Academy of Sciences is peculiarly fitted to bring its publications to the attention of foreign readers. In Europe the academy is regarded as the natural representative of American research, and this fact gives at once to the *Proceedings* an authoritative standing among foreign investigators.

As foreign secretary of the academy, I have been called upon to prepare, with the cooperation of the editors representing all departments of science, a comprehensive list of foreign exchanges. Every effort has been made to secure a well-balanced distribution. From the extensive data in *Minerva* relating to academies, societies, universities, seminars, general and special libraries, laboratories, observatories, museums, botanical and zoological gardens, biological stations, geological surveys, and other centers of study and research, a representative group of about 900 foreign institutions has been compiled. In preparing this mailing list use has also been made of the ex-

change lists of the Royal Society and other similar bodies. Bibliographical bureaus, yearbooks and journals giving special attention to abstracts and reviews have been included in the mailing list. Chief stress, however, has been laid on placing the *Proceedings* in the leading research centers, including university departmental libraries when these are of sufficient significance. In many cases it by no means suffices to send the *Proceedings* to a general university library; they must also be readily accessible in the departments and seminars where the work of research is mainly done.

Such a distribution will obviate the necessity, felt by some American investigators, of publishing their papers in foreign journals. They may now secure the circulation they desire by presenting their chief results in the *Proceedings* and the details in an American special journal.

Publication in the *Proceedings* will also have the advantage of bringing researches in one department of science to the attention of scholars in other departments, who would otherwise fail to see them. In a period when many of the greatest advances are being made in the fields lying between the traditional branches of science, and when the wide adaptability of various methods of research is being repeatedly demonstrated, it is unnecessary to dwell upon this point. It may only be mentioned by way of example that a well-known physicist has recently spoken to me of the advantage of seeing in the *Proceedings* short astronomical papers which he would not have opportunity to read in their more extended form.

As readers in widely separated fields may be expected, authors should make their papers as clear and as readable as possible. The papers should open with a statement of the purpose in view and the broader bearing or antecedent conditions of the investigation, and should close with a summary of results. The papers should be short, of two to six pages in length; but they should not be mere abstracts, devoid of interest except as a bare statement of facts, but complete and well-rounded articles, grounding their conclusions upon a substantial basis of calculations, observations or experiments, though free from all unnecessary technicalities and details and from extensive tabulations of data. They should always appear in the *Proceedings* prior to their publication in special journals.

While serving the purposes already enumerated, the *Proceedings* will attempt also to contribute to the popularization of scientific research. Nothing could be more injurious to the public appreciation of science than its current distortion by the newspapers. Mr. Melville E. Stone, general manager of the Associated Press, feels this no less keenly than the men whose work is so often misrepresented by reporters. He would heartily welcome means of securing reliable statements of progress in science, expressed in clear and unsensational form, for use by the Associated Press. By an arrangement with him the editors of the *Proceedings* will attempt to supply suitable statements, based upon such articles as are of sufficient general interest and importance. Authors who prefer not to have their articles used in this way may notify the editors. Every effort will be made to secure clear and dignified statements, expressed whenever possible in the author's own language. The experiment is not without its difficulties; and success may not be attained at once. It nevertheless seems important to make the attempt, in order to counteract in some measure the present unfortunate condition of affairs.

Provision will also be made for a review of the papers published in the *Proceedings* in the widely circulated journals of general science. Thus such a review will appear regularly in the columns of Science; and an arrangement has been made with the editor of *Nature* for the publication of reports on the monthly issues of the *Proceedings*. The *Scientific American*, which is conducted in a very creditable manner, will also, through an arrangement made with its managing editor, Mr. Waldemar Kaempfert, present accounts of the articles of popular interest.

In closing this paper, in which I have tried to indicate how the *Proceedings* of the National Academy may serve as a prompt and

convenient means of announcing and circulating the chief results of research, I should perhaps add a word to those who have not yet contributed to their pages. Papers are accepted solely on their merits, from non-members as well as from members of the Academy. To facilitate the work of the editors, it is required that papers by non-members be transmitted to the managing editor by a member, but neither the manner of printing nor the sequence of the papers in the *Proceedings* is affected by this fact. Further information may be obtained from Professor A. A. Noyes, chairman of the board of editors, Massachusetts Institute of Technology, Boston.

GEORGE ELLERY HALE

THE SEATTLE MEETING OF THE AMERICAN CHEMICAL SOCIETY

THE vote recently received at the secretary's office being overwhelmingly in favor of the Great Northern Railroad, which stops at Glacier National Park, arrangements have been made with this road for the party to leave Chicago at 5:05 P.M. Thursday, August 26. One and one half days will be spent at Glacier National Park, and Seattle will be reached at 6 P.M. August 30. August 31, September 1 and 2 will be spent at Seattle, and on the evening of September 2 the party will take a special train to Mt. Ranier National Park, where they will remain on Friday, September 3, leaving there that evening and arriving at Portland the following morning; spending the day in Portland as the guests of the Oregon Section; leaving Portland Saturday night, passing through the Mt. Shasta and Mt. Lassen region on Sunday and arriving in San Francisco Sunday evening. At San Francisco the party will break up, returning via any route they choose.

The round-trip rates from Chicago are $80. The sleeping car rates from Chicago to San Francisco by the route of the special train are as follows: Lower berth, $22.50; upper berth, $18.00; compartment, $63.00; drawing room, $80.00.

There will be an additional Pullman charge to Mt. Ranier National Park, which will, however, be little if any more than hotel accommodations should the party remain in Seattle. There may be also a small additional Pullman charge for holding the train at Glacier and Portland. There will be a charge of $12.50 for 114 miles of automobile trip and 20 miles of launch trip in Glacier National Park, and $5.00 for the side trip through Tacoma to Mt. Ranier National Park. The hotel rates in Glacier National Park are from $3.00 to $5.00 per day on the American plan. Those who wish may spend the night at "Many Glacier Camp" instead of at "Going-to-the-Sun Camp" on the night of August 29, which will give them plenty of time to take a side trip to the wonderful Iceberg Lake on the morning of the 29th.

As the Great Northern passes the very gates of Glacier National Park, a trip through the park is a very simple matter. The tremendous mountain land of Glacier National Park sits high up in the Rocky Mountains of northwestern Montana and stretches to the Canadian border. The park is of 1,525 square miles extent, with a veritable army of magnificent peaks rising from 8,000 to 10,000 feet, with their bases thickly timbered and their limestone crests painted in many colors—reds, browns, blues and purples. On the tops of these mountains are 20 glaciers every bit as inspiring as those ice fields which Americans have been crossing to Switzerland to see; of these the great Blackfeet Glacier has an area of five miles. There are more than 250 glacier-fed blue mountain lakes. So well have the most important sections of the park been linked by government auto stage roads that it is now possible to see within a short time what formerly required weeks to visit.

So much has been written about the wonders of Mt. Ranier National Park that there is little need to add detail here. The following quotation from the *Travelers Magazine* will be sufficient: "Read as much about it as you will, see it pictured a thousand times, and believe all the tales you hear of it, and on going there you will find that it has been underrated. It is hard to believe when you see it. Mt. Ranier is the highest mountain in the United States and has a glacial system greater than that of the whole Swiss Alps. The National